Dynamic Knowledge Principles & Learning Army Organizations

How Unthinkable?

Army Operational Knowledge Management
21 October 2009
Dr. Mark E. Nissen
Center for Edge Power
US Naval Postgraduate School

http://www.nps.edu/Academics/Centers/CEP/

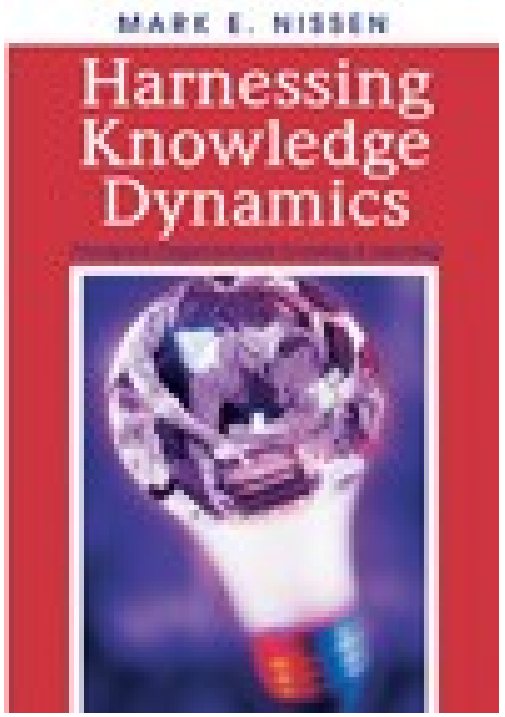
KM Background

25 years' research & practice

2006 book

"*Harnessing Knowledge Dynamics: Principled Organizational Knowing & Learning* translates what is arcane and controversial today into managerial guidance that is sophisticated yet practical. It also complements the many existing management books on strategy, technology, knowledge and systems while addressing a well-recognized void."

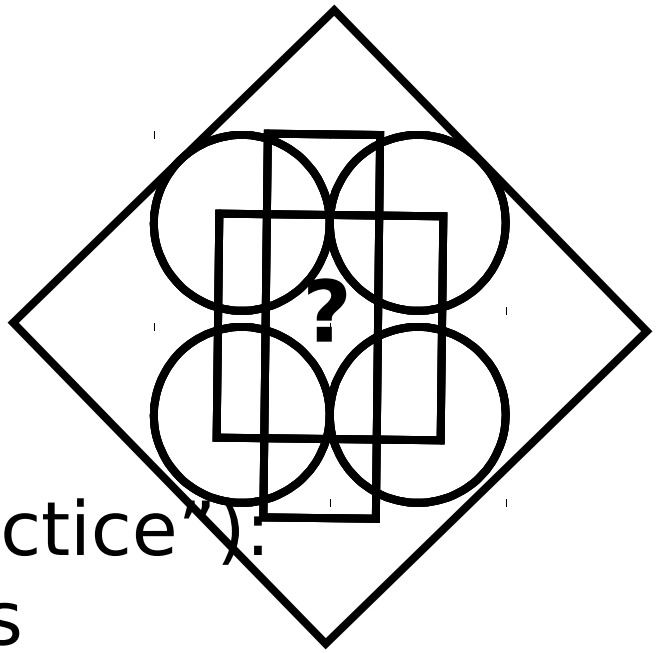
"*Harnessing Knowledge Dynamics: Principled Organizational Knowing & Learning* draws from the emerging knowledge-flow theory to provide stable principles to build a practice of knowledge management. It also draws from diverse, real-world experience to provide operational applications of knowledge-flow principles in practice. This book builds upon theory but targets practice; it takes knowledge known only by a few researchers and shares it with many leaders and managers."



King's Glazer Problem

Problem: How many panes?

- No geometry or math principles
- 4 visitors & approaches:



1. Vendor & Tools ("Solutions"):
   Problems?
2. Glazer & Experience ("OJT"):
   Guesses?
3. Emissary & Imitation ("best practice"):
   - Czar ~ standard *round* windows
4. Wizard & Principles ($n = A_W / A_P|_{shape}$):
   - $s^2 / .5bh = 4.07 / .5 * 5.5 * 5.5 = 8.0$

<Army's> KM Problem

- How to harness dynamic knowledge?
  - —Tools ("Solutions"): problems?
  - —KM experience ("OJT"): problems?
  - —Imitation ("best practices"): problems?
  - —*Dynamic knowledge principles*?
- Unthinkable?
  - —Principles are not magic or silver bullet
  - —Proven approach to repeatable problem solving
  - —KM tipping point: "small" change huge impact
- Possible future: KM PID
  - —**Ready for application!**

Three Key KM Principles

1. K □ A □ P □ CA (K ≠ I/D)
2. TK □ SCA (TK ≠ EK)
3. KM □ P + P + O + T

P1a. K → A → P → CA

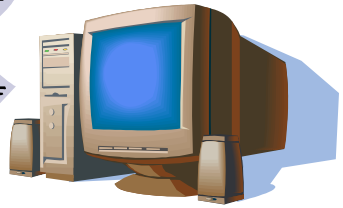
- K → A
  - —Knowledge enables action
  - —**Critical path**: importance of KM
- (A → P)
  - —Action drives performance
  - —**Predominate org focus**
- P → CA
  - —Performance supports competitive advantage
  - —**Overlooked role of knowledge**
- *Knowledge is critical competitive resource*

P1b. K ≠ I/D

- Knowledge distinct from information & data
  - —K action (e.g., behavior, decision, work)
  - —I meaning & context for action
  - —D answers to context-specific questions
- Intuition from ordinary conversation
  - —“Drowning in data”
  - —“Inundated by information”
  - —“I know too much” “I’m just too smart”
- *Focus on knowledge*

Gedanken Experiment

Same information. Different performance.



Col (O6)

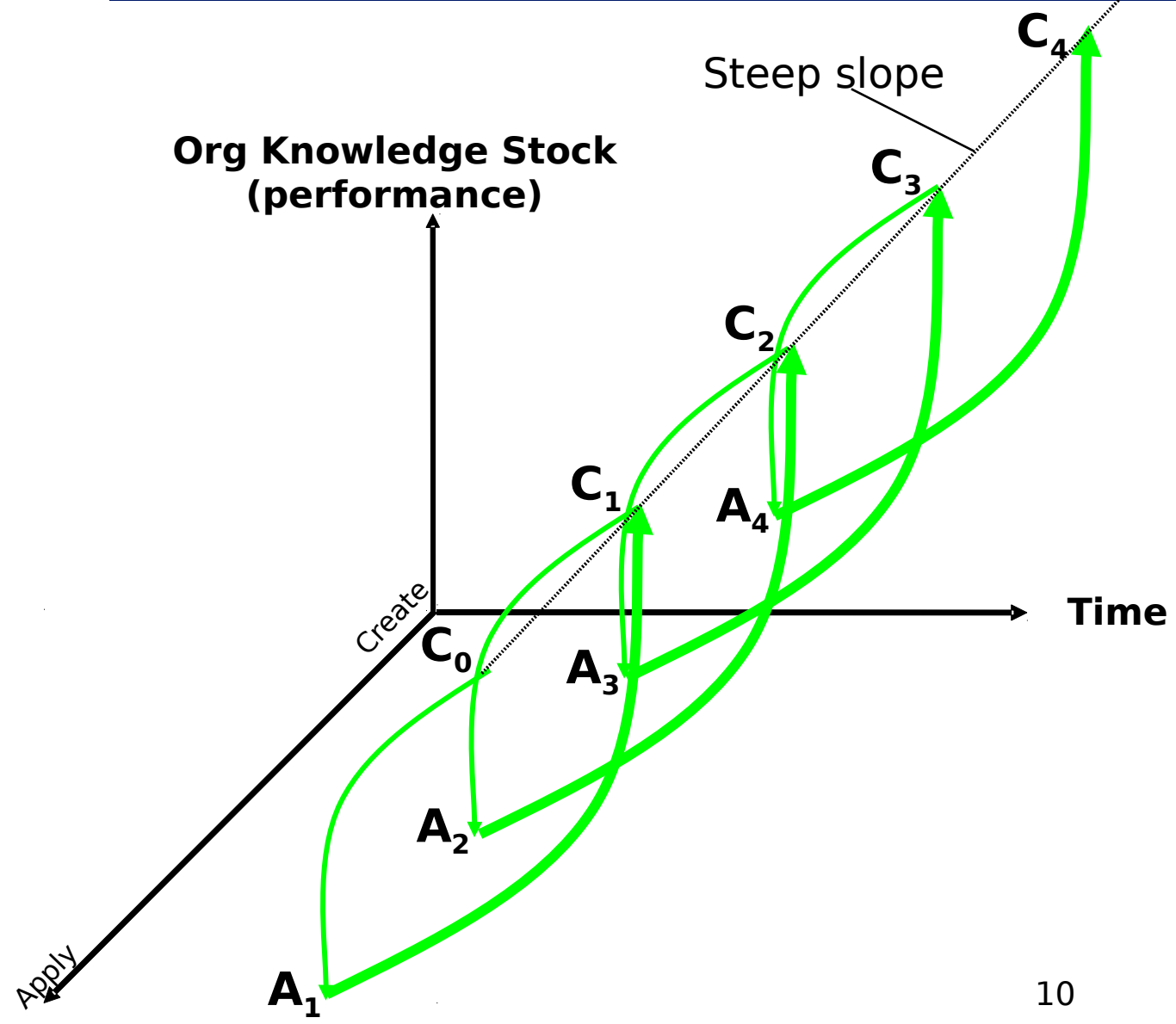
2-Lt (O1)

Bridge the gap.

P2. TK □ SCA (TK ≠ EK)

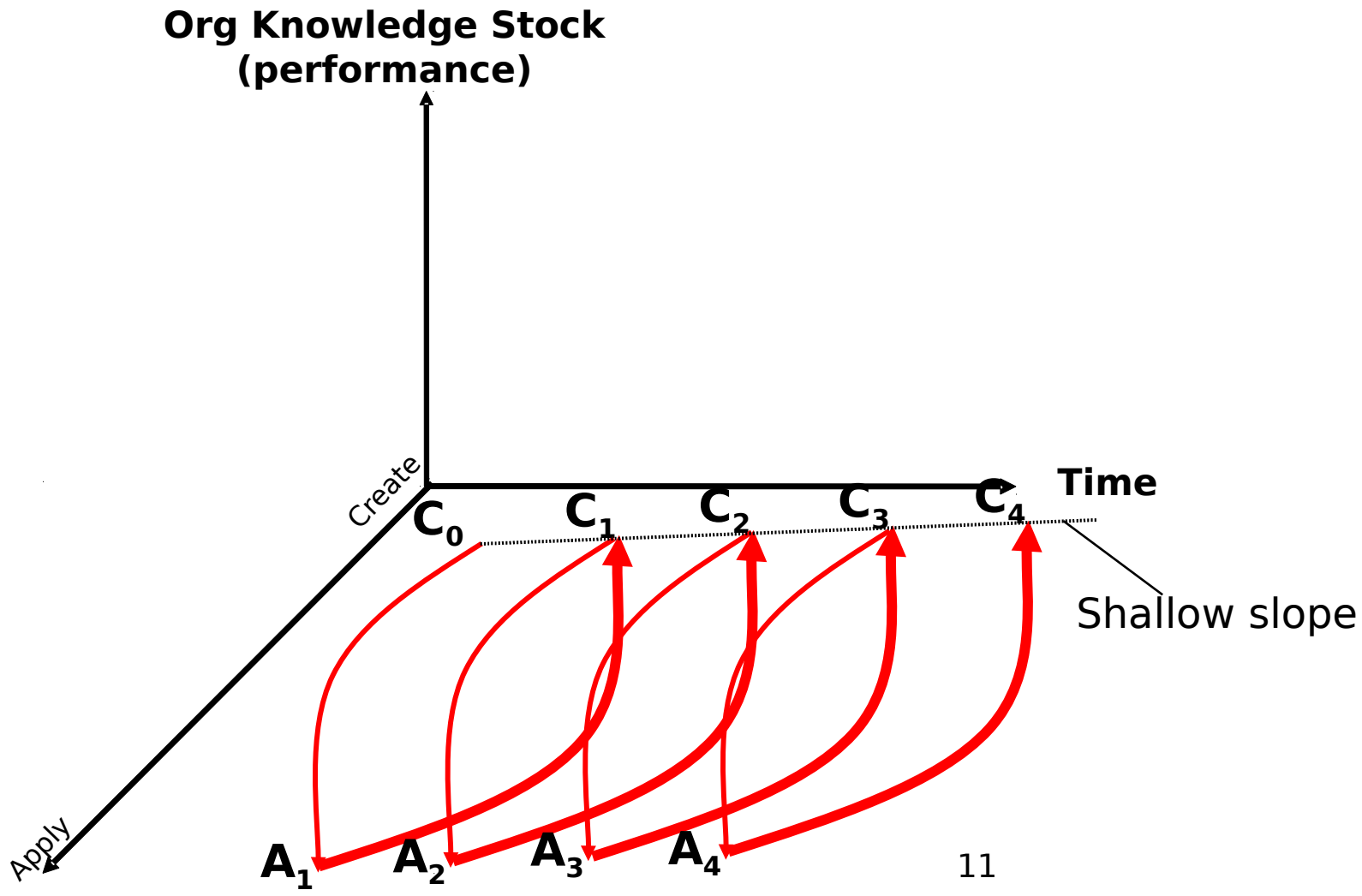
- Tacit knowledge supports **sustainable** competitive advantage – **inimitable**
  - —Land, labor, capital, technology?
  - —Information & explicit knowledge?
- Explicit knowledge (EK) – “artifacts”
  - —Documents, charts, formulae, software, products
  - —Fast & broad flows but diluted power
- Tacit knowledge (TK) – “experiences”
  - —People, processes & culture
  - —Slow & narrow flows but powerful
- *Focus on tacit knowledge*

Dynamic Interaction

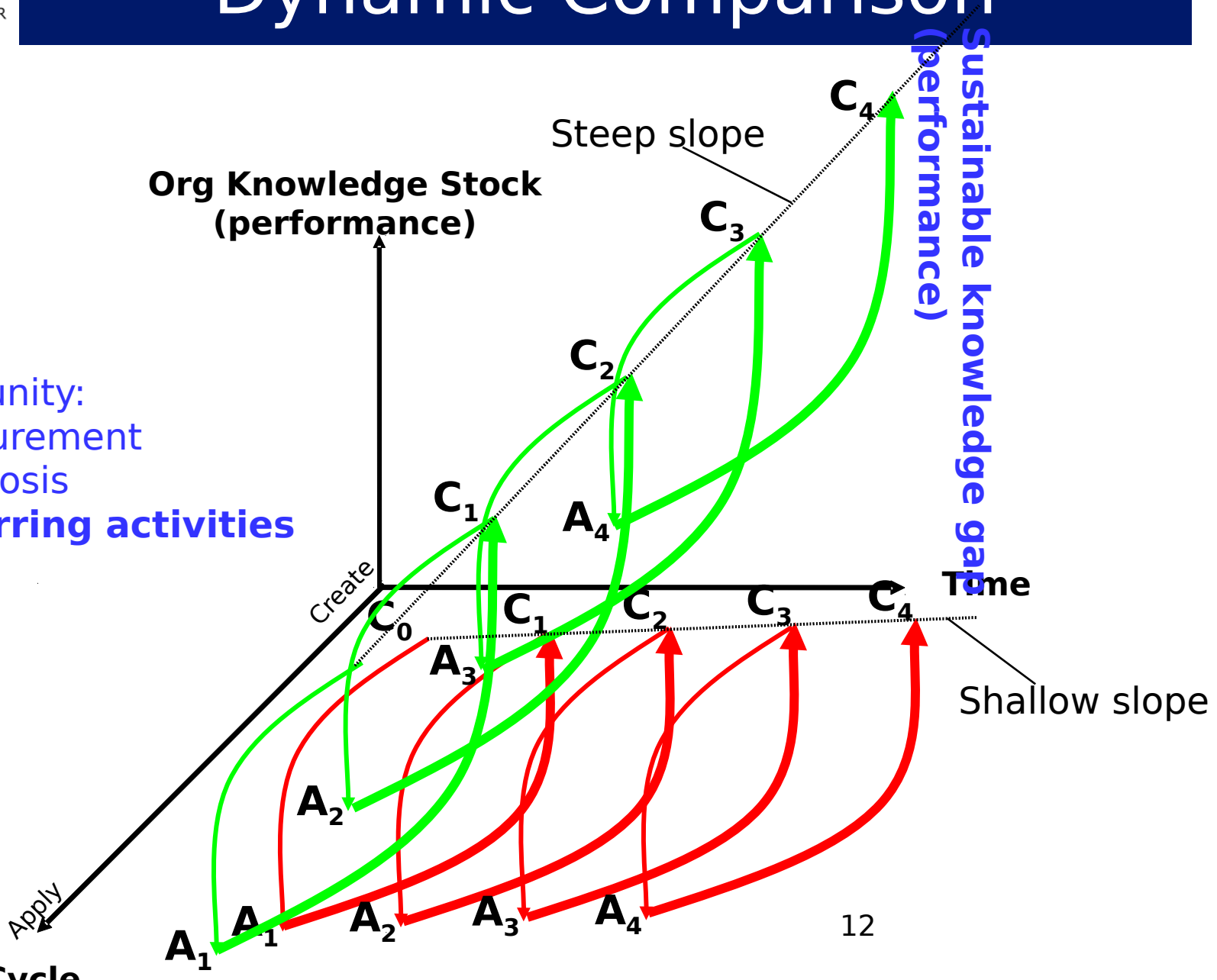


Life Cycle

Dynamic Interaction

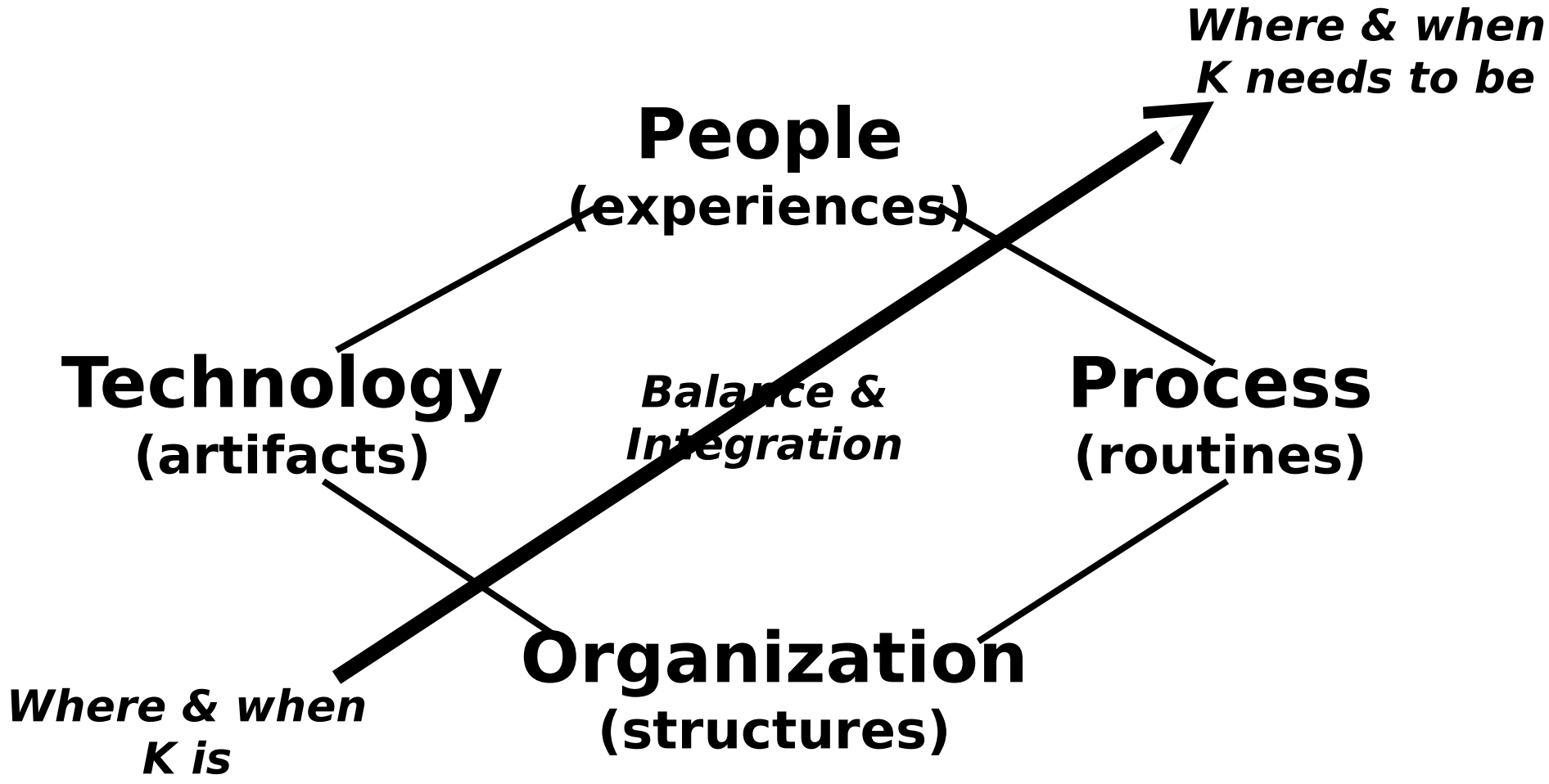


Dynamic Comparison



Opportunity:
- Measurement
- Diagnosis
- **Recurring activities**

P3. KM ≠ P + P + O + T


Where & when
K needs to be
People
(experiences)
Technology
(artifacts)
Balance &
Integration
Process
(routines)
Organization
(structures)
Where & when
K is

P3. KM □ P + P + O + T

Where & when K needs to be

Where & when K is

Some Resources

- Research publications:
  - *Harnessing Knowledge Dynamics: Principled Organizational Knowing & Learning* IRM Press (2006)
  - Articles & tech reports (eg see my webpage)
- KM education & training:
  - Issues in Defense KM-IM (IS3210): principles (K ⇨ A ⇨ P ⇨ CA)
  - *AKMC: job-specific training*
  - Knowledge Superiority (IS4210): principles (**CA ⇨ P ⇨ A ⇨ K**)
  - Knowledge Superiority *Certificate* (+2 courses)
- Ongoing support:
  - Army KM expertise
  - NPS faculty & others

Think the “Unthinkable”

- We’re here to help!

- MNissen [at] nps.edu
- markenissen [at] earthlink.net